

Title (en)

Device and method for separation of fluid components.

Title (de)

Vorrichtung und Verfahren zur Trennung von Flüssigkeitsbestandteilen.

Title (fr)

Dispositif et procédé pour la séparation de composants d'un fluide.

Publication

EP 0408222 A1 19910116 (EN)

Application

EP 90307138 A 19900629

Priority

US 37878689 A 19890712

Abstract (en)

The present invention involves a method and device for separating fluids from one another in a liquid mixture, and especially for separating undesirable components from the liquid mixture to obtain one or more desirable components for subsequent use. A sample of the liquid mixture is first applied to a physical transport medium which moves at least a portion of the liquid mixture from a remote location thereon to a second location thereon and in contact with a first surface of a microporous separation membrane. This movement is achieved by gravity, absorption or capillary action and the physical transport medium may be a sheet of fabric with weave or otherwise or a channeled or grooved synthetic material. Once a portion of the liquid mixture has moved to the first surface of the microporous separation membrane, one or more undesirable components are separated from one or more desirable components and the desirable components are absorbed and pass through the membrane. The desirable component(s) reach the second (opposite) surface of the microporous separation membrane and contact a collecting membrane. This collecting membrane collects the desirable components for further use, e.g. it may be capable of reacting with at least one of the desirable components to display at least one chemical reaction characteristic thereof. For example, colorimetric reaction may take place and color intensity may indicate concentration level or other quantitative or qualitative characteristic.

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Citation (search report)

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